

**BEARING****Compass Bearing**

Roadside: C/R/L

Feature Type: Length

Interlocking: Yes

**Definition/Background:** Represents a directional line segment of the roadway showing the degree of curvature of the roadway and bearing changes effected by curves in the roadway and/or horizontal shifts in the roadway.

**Responsible Party for Data Collection:** District Planning

**Required For:** All functionally classified roadways on the SHS

**Who/What uses this Information:** Safety, Central Planning, District Planning

**How to Gather this Data:** In office – Refer to construction plans or survey field book.

Enter N or S, the degrees/minutes/seconds, and the direction of deviation. Determine the angle deviation from north or south and the direction of the deviation.

Code using the described format. For example, a roadway heading 29 degrees in an eastward direction from north would have a deviation description of “N 29° E,” and a roadway 35 degrees from south in a westward direction would be “S 35° W.”

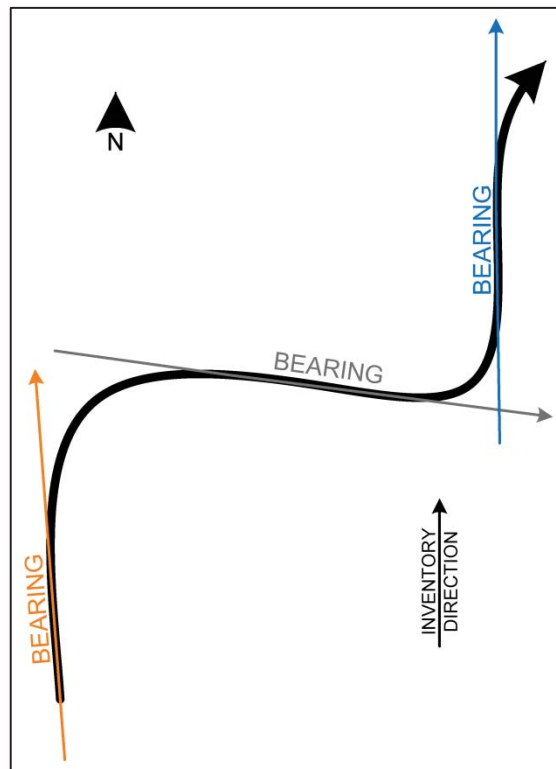
**Value for Compass Bearing: 11 Bytes:** XXXDXX'00"X – Record curve degrees/minutes/seconds

Enter using the following format:

			D			'	0	0	"		Format
1	2	3	4	5	6	7	8	9	10	11	Position

Below are descriptions for the byte positions:

- 1 N (north) or S (south)
- 2, 3 the number of degrees the roadway turns
- 4 D for degrees
- 5, 6 minutes of the curve
- 7 single quote (') for minutes
- 8, 9 seconds of the curve
- 10 double quote (") for seconds
- 11 direction in which the curve is traveling: E (east) or W (west)



**HRZCANGL****Horizontal Curve Central Angle**

Roadside: C/R/L

Feature Type: Length

Interlocking: Yes

**Definition/Background:** Denotes the roadway segment's central curve angle. Also commonly referred to as the delta ( $\Delta$ ).

**PI** – Point of Intersection. The point where the back and forward tangents intersect.

**Central Angle** – Angle formed by two radii drawn from the center of the circle to the PC and PT. Also referred to as the delta ( $\Delta$ ).

**Responsible Party for Data Collection:** District Planning

**Required For:** All functionally classified roadways on the SHS

**Who/What uses this Information:** Safety, Central Planning, District Planning

**How to Gather this Data:** In office – Refer to construction plans or survey field book. Enter degrees/minutes/seconds. Refer to coding box.

Offset direction: 1-right and left, 2-right, 3-left

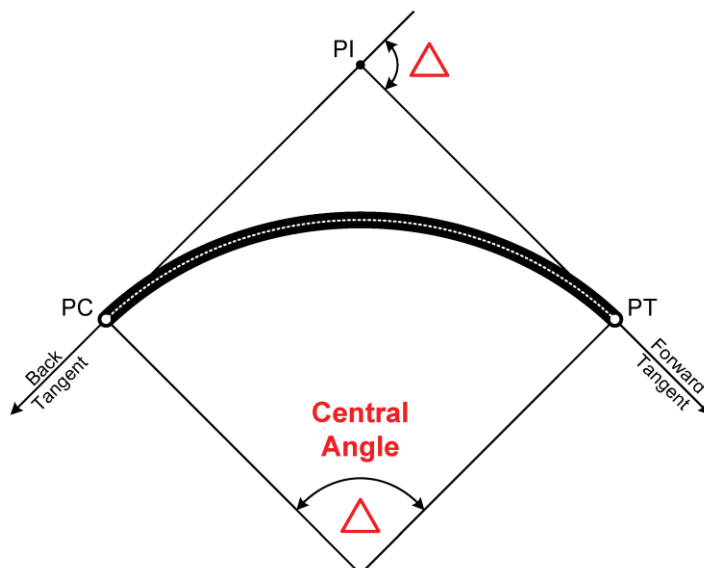
**Value for Horizontal Curve Central Angle: 13 Bytes:** XXXDXX'XX.00" – Record angle according to degrees/minutes/seconds /hundredths of a second

Enter using the following format:

			D			'			.	0	0	"	Format
1	2	3	4	5	6	7	8	9	10	11	12	13	Position

Below are descriptions for the byte positions:

- 1-3 will be the number of degrees of the angle (zero fill degrees; e.g., 005 for 5 degrees)
- 4 will always be D for degrees
- 5, 6 will be the minutes of the curve
- 7 will always be a single quote (') for minutes
- 8, 9 will be the seconds of the curve
- 10-12 will always be .00 (optional – may be removed)
- 13 will always be a double quote (") for seconds

**CURVE DATA**

PI STA	= 406+00.58
<b>DELTA</b>	<b>= 18° 02' 46" (RT)</b>
D	= 1° 30' 00"
T	= 606.56'
L	= 1,203.07'
R	= 3,819.72'
PC STA	= 399+94.03
PT STA	= 411+97.10

**HRZDGCRV****Horizontal Degree of Curve**

Roadside: C/R/L

Feature Type: Length

Interlocking: Yes

**Definition/Background:** Denotes the degree of curvature per 100 feet. Sometimes referred to as the D value of the curve.

The horizontal degree of curve is used to calculate the CURCLAS<sub>x</sub> (x = A-F) in Feature 118 (HPMS).

The degree of curvature is measured by the angle subtended at the center by an arc 100 feet long.

Small D values represent flat curves with large radii, and large D values represent sharp curves with small radii. In general, D values larger than 20° are rare.

**Responsible Party for Data Collection:** District Planning

**Required For:** All functionally classified roadways on the SHS

**Who/What uses this Information:** Safety, Central Planning, District Planning

**How to Gather this Data:** In office – Refer to construction plans or survey field book.

Offset direction: 1-right and left, 2-right, 3-left

Enter degrees/minutes. Refer to coding box. The horizontal degree of curve should be coded for both sides of the roadway for all divided roadways that have different alignments.

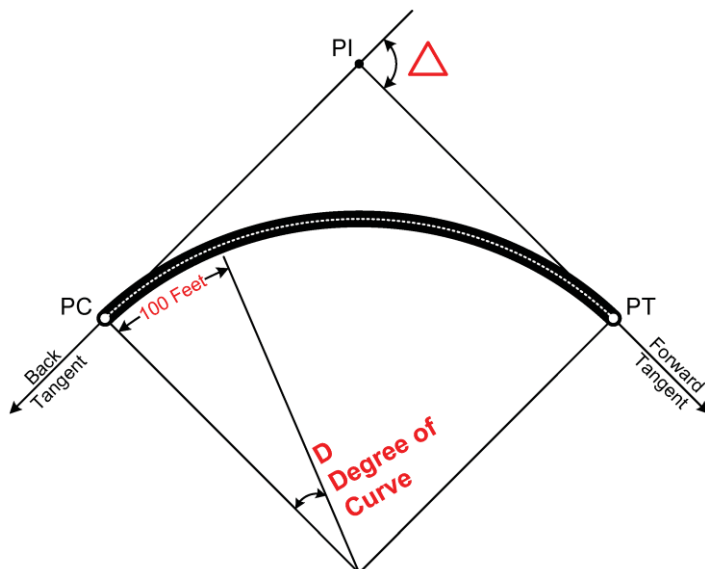
**Value for Horizontal Degree of Curve: 7 Bytes:** XXXDXX' – Record degrees/minutes

Enter using the following format:

			D			'	Format
1	2	3	4	5	6	7	Position

Below are descriptions for the byte positions:

- 1-3 will be the number of degrees the roadway turns
- 4 will always be D for degrees
- 5, 6 will be the minutes of the curve
- 7 will always be a single quote (') for minutes

**CURVE DATA**

PI STA	= 406+00.58
DELTA	= 18° 02' 46" (RT)
<b>D</b>	<b>= 1° 30' 00"</b>
T	= 606.56'
L	= 1,203.07'
R	= 3,819.72'
PC STA	= 399+94.03
PT STA	= 411+97.10

**HRZPTINT****Horizontal Point of Intersection**

Roadside: C/R/L

Feature Type: Length

Interlocking: Yes

**Definition/Background:** Milepoint number for the intersection of the back and forward tangents projected onto the roadway.

**PC** – Point of Curvature. The point on the back tangent where the curve begins.

**PI** – Point of Intersection. The point where the back and forward tangents intersect.

**PT** – Point of Tangency. The point on the forward tangent where the curve ends.

**NOTE:** Record the milepoint of the PC as the BMP and the milepoint of the PT as the EMP of Feature 221.

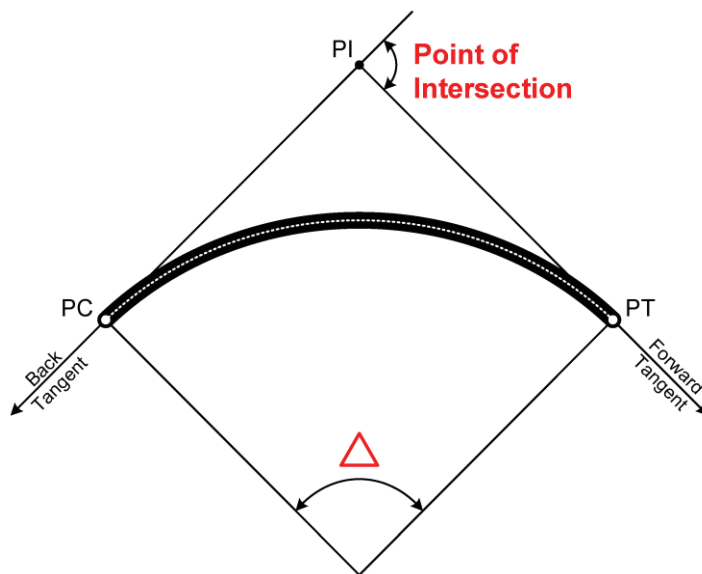
**Responsible Party for Data Collection:** District Planning

**Required For:** All functionally classified roadways on the SHS

**Who/What uses this Information:** Safety, Central Planning, District Planning

**How to Gather this Data:** In office – Refer to construction plans or survey field book. Enter in milepoint number for the intersection of the point of curve.

**Value for Horizontal Point of Intersection: 6 Bytes:** XXX.XXX – Record milepoint of the PI

**CURVE DATA**

PI STA	= 406+00.58
DELTA	= 18° 02' 46" (RT)
D	= 1° 30' 00"
T	= 606.56'
L	= 1,203.07'
R	= 3,819.72'
PC STA	= 399+94.03
PT STA	= 411+97.10